No: / Theme		Day 1	Day 2	Day 3	Day 4	Day 5
1 ION CHANNELS	am	Structure & properties of membrane channels		Structure and properties of calcium channels R Tsien	Channel modulation by G-proteins	Channel modulation by intracellular factors
	pm	Orgs: Aldrich (USA) Cull-Candy (UK)			Dolphin (UK) Standen (UK) Hescheler (Ger)	---ditto organisers
2 INTRACELLULAR IONS	am	Structure and properties of pumps & transporters			Regulation of cell mechanism	pH regulation and function
	pm	Glynn (UK) Kaplan (USA) Wright (USA)	Na-K ATPase isoforms & endogenous ouabain like factors		Scarpa (USA)	Vaughan-Jones Wray
3 SYNAPTIC MECHANISMS	am	Synaptic transmission excitatory and inhibitory modulation		mechanisms and	Neurobiology of peptidergic afferents	Muscarinic mechanisms
	pm	Kelly (UK) Changeux (France)			Harma (UK) Rang (UK) Black (USA)	T Bonner (USA) D Brown (UK)
4 SENSORY TRANSDUCTION & PERIPHERAL PROCESSING	am	Sensory transduction and peripheral processing (Overall - Aki Kaneko (Japan))				
	pm	Photoreception & Retina T Lamb (UK)	Photoreception & Chemoreception G Gold (USA)	Hair cells and mechano reception J Ashmore	Physiology of Pain T Kumazawa (Japan) A Duggan (UK)	
5 VISUAL SYSTEMS	am		Division of labour in	visual system	Control of head and eye movement	
	pm		D van Essen (USA)	Roland (Sw)	G R Barnes (UK) O Hikosaka (Japan)	
6 CEREBRAL CORTEX	am	Cortical oscillations, synchrony and circuitry		Cognitive neuroscience		(IBRO) Disorders of learning and memory
	pm	J Jefferys (UK) Gutnick & Traub		C Blakemore (UK) M Posner (USA)		B Milner (USA) M Khananashvili (USSR)
7 LEARNING MEMORY & DEVELOPMENT	am	Neurobiology of learning and memory (including long term potentiation and depression)		Cellular and molecular mechanisms of neural development		
	pm	L Bindman (UK) G Horn (UK) C Woody D Alkon		NR Saunders (UK) M Noble (UK)		
8 SOMATOSENSORY SENSATION & HEARING	am	Discriminative and active touch	Plasticity in the somato sensory system		Processing of complex signals in the auditory system	
	pm	KO Johnson (USA) J Phillips (UK) Y Iwamura (Japan)	R Dubner (USA) C Woolf (UK)		L Aitken E Evans (UK) S Medvedev (USSR)	

Source: https://www.industrydocuments.ucsf.edu/docs/jkmv0000

No: / Theme		Day 1	Day 2	Day 3	Day 4	Day 5
9 STRIATED AND CARDIAC MUSCLE	am	Skeletal muscle: Crossbridges	Molecular aspects of e-c coupling with Theme 10	Ca channels (with Theme 1)	Cardiac excitation and contraction	
	pm	Org. H Huxley LO D Trentham	K Beam (USA) CC Ashley	Eisner (UK) Solaro (USA) Miller (UK) Giles (Can) Hilary Brown (Oxford)		
10 MUSCLE	am	Molecular aspects of e-c coupling with Theme 9		Ca channels (with Theme 1)	Smooth muscle excitation, contraction & regulation	
	pm			Smooth muscle control	Hartshorne (USA) Somlyo (USA) Kuriyama (Japan)	
11 MOTOR CONTROL	am	Spinal mechanisms contributing to limb movements	Proprioception and afferent control of movement (Ian Boyd Symposium)	MOTOR CONTROL Overall Org: R Lemon (UK) Cerebral cortical control of movement	Learning and adaptation of motor tasks (cerebellum & brainstem)	Comparative Physiology of Motor Control
	pm	E Jankowska (Sweden)	W Ferrell(UK) U Proske	S Gandevia (Aus)	D Armstrong (UK) SK Manchanda (Ind)	B Bush (UK)
12 CENTRAL INTEGRATION OF AUTONOMIC FUNCTION	am	Overall Organiser - Central autonomic mechanisms		-- Prof C Kidd Central integration of cardiorespiratory control		Cardiovascular control in health and disease
	pm	LO: Coote Loewy, Mathias		LO: Spyer Richter, Feldman	Hainsworth	
13 CARDIOVASCULAR SYSTEM I	am	Cardiac energetics & coronary blood flow	Growth of the heart and its blood vessels	Interstitium, connective tissues and lymphatics		Microvascular transport
	pm	Sparks & Schrader	R Zak & Hudlicka	Org: R Reed, P Winlove, N McHale J Bert		LO: Gaehtgens Curry
14 CARDIOVASCULAR SYSTEM II	am	Mechanisms of vasodilation		Endothelial Cell biology and vascular growth		Pulmonary vasomotor control
	pm	LO: Vanhoutte, McGrath		LO: J Pearson S Silverstein		Al Fishman Nye
15 LUNGS & BREATHING	am	Global aspects of regulation of breathing and focal brain function		Cellular aspects of the respiratory tract to include biology of airways and alveoli, respiratory mucosae & airway smooth muscle		
	pm	Guz	Arterial chemoreceptors McQueen R O'Regan Paterson	Ward/Olver/J Widdicombe/		
16 ENERGETICS & EXERCISE	am	Muscular Exercise			Mitochondria	
	pm	(Saltin)		Cross-adaptations Hochachka & Heiss IntSoc Adaptive Med	Michael Duchen	

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17 ENVIRONMENTAL	am	Gravition physiology Bjurstedt/Grigoriev	Underwater physiology	Altitude acclimatisation Sutton, Monge	Altered Metabolic State Hibernation & estivation	Diving & hypometabolism
	pm	High pressure & anaesthesia E B Smith	Kindwall	Freeze tolerance in nature Storey	C Heller, L Wang	Fedak, Catellini
18 EPITHELIAL TRANSPORT	am	Cell volume regulation and water transport	Biogenesis of epithelial polarity	Paracellular transport Ch: Frömter	Crosstalk between epithelial cells Harvey	Placental transporters LO RDH BOyd
	pm	Hoffmann, Reuss Grantham LO: Green	Ch: I Louvard LO: Sibley (Manch)	Na-coupled transporters in epithelia Cheeseman		
19 SECRETORY PATHWAYS	am	Sorting & processing in secretory cells LO: J Hutton (Camb)	Calcium signals in secretory cells LO: O H Petersen (Liverpool)		CFTR- Cl- channels and secretion B Argent CAR Boyd	
	pm					
20 INTEGRATIVE PHYSIOLOGY GI & RENAL	am	Visceral afferent mechanisms LO: Grundy (Sheff) Morrison (Leeds)	Molecular control of gastric function LO: Dockray	LO: Garner (ICI)/ Allen (NewCastl)	Autonomic neuro effector mechanisms LO: Lees (Aberdeen) Ch: Furness (Melb Australia)	Enteroinsular axis Org. Brown (Vancouv)
	pm					Neuromediators in the kidney diBona/NC Moss
21 INTEGRATIVE PHYSIOLOGY & RENAL	am	JG apparatus, mesangial cells and renin-angiotensin Ch. Navar Kurokowa	Calcium metabolism in bone & epithelia Garel, Bonjour	Renal transport ATPase and metabolism Chm: Doucet, Mandel	Renal tubular acidification Alpern	Loop of Henle Imai & deRouffignac
	pm				PITTS LECTURE: W Boron Morgan & Windhager	Heterogeneity of collecting tubule Knepper & Tisher
22 NEURO - ENDOCRINOLOGY	am	Gene structure & transcription coupling in neuroendocrine systems Org: Leng, C Edwards, J	Transgenic animals & gene knock out in neuroendocrinology Seckl,	Steroid/thyroid receptors gene superfamily	Gonadotrophin releasing hormone Pfaff	Fever as a neuro immunological endocrine phenomenon LO: Rothwell
	pm				Atrial naturietic peptide Fink	
23 DEVELOPMENT & ENDOCRINOLOGY	am	Homeobox genes Price	Fetal physiology John Challis (London, Ontario)	Central control of oxytocin & vasopressin	Oxytocin release and receptors	Oxytocin & vasopressin in gonads & adrenals
	pm				Atrial naturietic peptide	AVP & oxytocin in the kidney
				---------- NEUROHYPOPHYSIS 1993 - (Forsling et al)---		
24 CNS CONTROL OF BEHAVIOUR RHYTHMS & STRESS	am	Reproductive behaviour Herbert (Camb) Pfaff	Biological rhythms & sleep Waterhouse, Moore Ede,	Feeding behaviour LO: J Hughes (Camb)	Physiology of Stress & the neural control of immunological responses Org: Sudakov (SU) Guha (Ind)	
	pm					

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25 REGENERATION & TRANSPLANTA-TION IN THE CNS	am	Neural regeneration transplantation				
	pm	Ray Lund (Cambridge, Anatomy) Albert Aguayo (McGill)				
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